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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/042,499	01/07/2002	John M. Harris	CE09179R	7019
22917	7590	11/10/2005	EXAMINER	
MOTOROLA, INC. 1303 EAST ALGONQUIN ROAD IL01/3RD SCHAUMBURG, IL 60196			BHATIA, NEERAJ R	
			ART UNIT	PAPER NUMBER
			2661	

DATE MAILED: 11/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/042,499	HARRIS ET AL. 	
	Examiner	Art Unit	
	Neeraj Bhatia	2661	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 January 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-4 and 9-12 is/are allowed.
- 6) ☒ Claim(s) 5-8 and 13-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: On page 8 line 3 of the specification, the applicant discloses that the logic flow returns to step 307 in Fig 7 if the logic unit determines that an idle frame has not been received. There is no step 307 in Fig 7.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 5, 6, 8, 13, 14, 16 and 17 are rejected under 35 U.S.C. 102(e) as being anticipated by Lee.

With respect to claims 5, 8, 13 and 16, Lee (Patent No. 6,718,500) discloses two radio link protocols 211 and 212 in Fig 2, that exchange RLP frames (plurality of data frames) with their associated physical channel and multiplexing devices 221 and 222 respectively (column 4 lines 16-20). Lee discloses an RLP communication method for a mobile communication system that determines if the last frame has been transmitted normally or not and performs an idle procedure step 317 (Fig 3) when there is no data

or control information to transmit (column 5 lines 1-25). The radio link protocol can control the number of idle frames to be transmitted by previously setting the idle transmission counter to N (column 6 lines 17-20). The RLP performs a NAK list processing procedure defined in the RLP type 2 (column 9 lines 45-47). The RLP type 2 also transmits idle frames when there is no frame to transmit so as to inform the receiving side about the sequence number of the last transmitted data frame, enabling the receiver to recognize a failure in receiving the last data frame (column 1 lines 59-62). As shown in Fig 4 and Fig 3, the idle procedure step ceases to send idle frames once there is data to be transmitted, therefore, if the final data frame was noted to be improperly received, the idle procedure step would stop as the data frame would be resent. Lee also discloses an ACK frame that is transmitted in response to a transmitted information frame, and retransmission occurs if this frame is not received in a predetermined amount of time (column 7 lines 36-38).

Regarding claims 6,14 and 17, Lee discloses a system as stated that performs radio link protocol type 2 (column 6 lines 46-48) wherein the idle frames have a sequence number incremented from the final data frame transmitted in order to inform the receiving side about the sequence number of the last transmitted frame (column 1 lines 59-62).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 7, 15 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee in view of Chang.

Lee discloses all that is stated above, but does not disclose the step of receiving the NAK, wherein the NAK comprises a sequence number for a frame not received by the remote unit. However, Chang in Patent No. 6,956,855, discloses an apparatus and method for retransmitting data according to a radio link protocol in a mobile communication system that transmits a NAK list when there are lost frames and this list includes a list of sequence numbers for all the lost frames (column 7 lines 22-31). It would have been obvious to one skilled in the art at the time of the invention to include the NAK list in Lee in order to specify to the transmitter which frames were improperly received and what order they should be sent in, thus enabling the RLP frame receiver to transmit a retransmission request more rapidly (column 4 line 65 – column 5 line 3).

Allowable Subject Matter

6. Claims 1-4 and 9-12 are allowed.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Abrol (Patent No. 6,507,582) discloses a method and system for transmitting a stream of data bytes, including retransmission of errant frames and sending a NAK when frames are not received. Rezaiifar (Pub No. Us 2002/0041596) includes a method involving retransmission of frames when receiving a NAK and decides whether or not a frame has been received correctly by comparing sequence


numbers. Also, idle frames are transmitted when there is no data to be transmitted. Oh (Pub No. US 2003/0028837) discloses a method of retransmitting a frame when receiving a NAK.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Neeraj Bhatia whose telephone number is (571) 272-5204. The examiner can normally be reached on Monday through Friday: 8:00 - 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau Nguyen can be reached on (571)272-3126. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

NB


CHAU NGUYEN
SUPERVISORY PATENT EXAMINER
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